



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

JUL 08 2014

Mr. Aurel M. Arndt, General Manager
Lehigh County Authority
1053 Spruce Street
PO Box 3348
Allentown, Pennsylvania 18106-0348

Re: Administrative Order CWA-03-2009-0313DN

Dear Mr. Arndt:

The United States Environmental Protection Agency Region III (US EPA) received Lehigh County Authority's (LCA) February 3, 2014 semi-annual Progress Report on implementation of the above-referenced Administrative Order (AO). In preparation for the next semiannual Progress Report, due July 31, 2014, LCA should be sure to address all comments from the December 18, 2013 letter from US EPA.

According to Paragraph 20 of the AO, Respondents are required to eliminate the discharges from the sanitary sewer overflows (SSOs) in the collection system by December 31, 2014. In anticipation of the deadline of the AO, US EPA will be contacting you in order to schedule a meeting to take place in late summer 2014 between LCA, US EPA and the Pennsylvania Department of Environmental Protection (PADEP). At that meeting, the LCA should be prepared to discuss the work that has been completed to date to comply with the AO, any remaining work needed to comply with the AO.

US EPA looks forward to LCA's upcoming semiannual Progress Report and scheduling a time when all parties can meet to discuss finalizing the requirements of the AO. If you have any questions regarding this matter, please contact me at 215-814-2389 or at crane.rebecca@epa.gov.

Sincerely,

A handwritten signature in black ink that reads "Rebecca K. Crane".

Rebecca K. Crane, Environmental Engineer
NPDES Enforcement Branch

cc: Deane Bartlett, US EPA
Darryl Fritz, PADEP





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DEC 18 2013

Mr. Aurel M. Arndt, General Manager
Lehigh County Authority
1053 Spruce Street
PO Box 3348
Allentown, Pennsylvania 18106-0348

Re: Administrative Order CWA-03-2009-0313DN

Dear Mr. Arndt:

The Environmental Protection Agency (EPA) received the Lehigh County Authority (LCA) July 31, 2013 semi-annual Progress Report on implementation of the above-referenced Administrative Order (AO) on behalf of a number of the Respondents to the AO, collectively referred to as the Western Lehigh Sewerage Partnership (WSLP). Below are EPA's comments regarding the Progress Report.

1. Progress Toward Eliminating Inflow

LCA reported that above grade wet weather sewer observations have been performed in 82 of 93 catchments identified by its 2009 flow data analysis. In the next progress report, explain when the LCA will complete the remaining above grade wet weather sewer observations. In addition, please provide a summary of the results of the wet weather sewer observations conducted during the current reporting period in Lower Macungie Township. Last, since all above grade wet weather sewer observations are not complete, explain how LCA intends to include potential corrective actions from these efforts in its Capital Improvements Plan (CIP) – scheduled to be complete in fall 2014 (which is later than the previously expected January 2014 completion date).

LCA has stated that "[b]asement disconnections are being completed voluntarily by property owners or under existing regulations governing inspection and corrective measures of the sale of property." As requested in EPA's previous comments on the last progress report, LCA should explain in detail how a combination of voluntary completion of basement disconnections and existing property sale regulations will result in timely removal of all remaining illegal basement disconnections. Otherwise, LCA should provide a plan for basement disconnections that includes specific measures to be taken and a schedule for completion of those measures.

In the next progress report, continue to include a detailed tabulation of inflow reduction measures conducted during the reporting period. Include further details on the 6 smoking storm inlets, as this was left blank in the current progress report, as well as an update on the cleanout cap and stem replacement and repair program.

2. Progress Toward Eliminating Infiltration

LCA has stated that the AO's requirement under section 22.b "*[r]egarding locating sources of infiltration using CCTV inspections is not an effective approach.*" Paragraph 22.b of the AO does not dictate how Respondents must locate sources of infiltration throughout its system. EPA recognizes that all systems are unique and encourages Respondents to utilize a combination of practices and technologies that work best for them.

LCA has stated that the preliminary screening of alternatives is underway and will be completed in 4Q13. Therefore, EPA requests that LCA provide an update on the alternatives analysis in its next progress report including a summary of the remaining work that must be complete in order to finalize this analysis. As requested in EPA's previous comments on the last progress report, LCA should confirm that it intends to rehabilitate all of the laterals associated with the 58,000 LF of sewers in the identified high weir areas as part of its CIP. If it does not intend to rehabilitate every lateral in those areas, LCA should describe in detail how it will determine which laterals will be rehabilitated. LCA should also provide progress on its CIP, including a detailed tabulation of infiltration reduction measures, as part of the next progress report. That tabulation should include the rehabilitation of all 58,000 LF of sewer mains in the identified high weir areas.

LCA has stated that "[t]here are several areas within the WLSP that appear to offer significant benefits, both from structural integrity and leakage reduction perspectives. These areas are included in those that have been CCTV inspected in the past year (Table 3-1) expressly for the purposes of pre-loading obvious improvements ahead of the comprehensive CIP." LCA has not provided the outcome of these inspections nor suggested improvements. Please provide the results of this effort in future progress reports as well as an update on infiltration reduction measures.

3. Progress Toward System Characterization

In its next progress report, LCA should provide an update on its rehabilitation effectiveness study including the quantification of I/I removal. In addition, LCA should provide an update on its Level of Service/Level of Control (LOS/LOC) modeling effort in its next progress report.

4. Progress Toward Cooperative Management of Flows

Since LCA was selected as the Concessionaire for the City of Allentown's water and wastewater systems in spring 2013, please describe any changes expected to the signatory

meetings. Also, continue to include the dates of collaboration meetings held among Respondents in addition to documentation on topics discussed and/or meeting minutes.

5. Adequate Funding of Operation and Maintenance Activities

Paragraph 22.e. of the AO requires LCA to provide the figures for revenue generated through sewer fees and other sources, as well as listing total revenue allocated to sewer system operation and maintenance. LCA is also required to provide an estimate of costs expended for compliance with the AO during the reporting period and funding options for future rehabilitation, including an analysis of potential regionalization of the System, to achieve full compliance with the AO. LCA's future progress reports should continue to include a response to all information required in Paragraph 22.e of the AO.

LCA provided numerous updates throughout its current progress report that maintain it will not meet the deadline of the AO, including that statement that "initial compliance with requirements of the AO related directly to the WLSP is expected to be achieved around 2019." Since EPA has not granted a deadline extension to LCA, EPA suggests a meeting with LCA to discuss compliance options that include close coordination with PADEP. EPA will therefore be in contact to coordinate such meeting. If you have any questions regarding this matter, please contact me at 215-814-2373.

Sincerely,

A handwritten signature in black ink, appearing to read "Allison M. Graham", with a long horizontal stroke extending to the right.

Allison M. Graham, Environmental Engineer
NPDES Enforcement Branch

cc: Deane Bartlett, EPA/ORC
Darryl Fritz, PADEP

MAY 31 2013



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Mr. Aurel M. Arndt, General Manager
Lehigh County Authority
1053 Spruce Street
PO Box 3348
Allentown, Pennsylvania 18106-0348

Re: Administrative Order CWA-03-2009-0313DN

Dear Mr. Arndt:

The Environmental Protection Agency (EPA) received the Lehigh County Authority (LCA) January 30, 2013 semi-annual Progress Report on implementation of the above referenced Administrative Order (AO) on behalf of a number of the Respondents to the AO, collectively referred to as the Western Lehigh Sewerage Partnership (WSLP). Below are EPA's comments regarding the Progress Report.

1. Progress Toward Eliminating Inflow

LCA reports that *"the Capital Improvements Plan (CIP) will contain a detailed schedule of how defects identified during the SSES investigation are going to be addressed. The Capital Improvements Plan is dependent upon the completion of the SSES Analysis and Level of Service modeling effort. It is expected that the Capital Improvement Plan will be completed January 2014."* As such, LCA has not provided a comprehensive schedule for inflow reduction measures in the current progress report. EPA requests that LCA provide progress on its CIP, including a detailed tabulation of inflow reduction measures, as part of the next semi-annual report. In addition, since LCA expects to complete its CIP by January 2014, explain in the next progress report how LCA plans to meet the AO deadline of December 31, 2014.

EPA commented on the last progress report that LCA had provided only a map where basement inspections were performed for that reporting period. EPA noted that LCA had indicated that *"[b]asement inspection results and analyses will be presented in the January 2013 Semi-Annual Report."* LCA has again provided a map indicating catchments where basement inspections were performed. The report does not indicate whether this map is all-inclusive or covers only the reporting period. In future progress reports ensure that the map of basement



inspections differentiates between what was completed during the reporting period versus previous inspections. LCA notes that "Basement inspections were completed..." and states that the results analyses of the basement inspections are provided in Appendix A. However, no tabular summary was attached to Appendix A. As EPA requested in its previous comment letter, LCA should provide the basement connections results and analyses in a format modeled after the basement connections results presented in Appendix A of the January 2012 Progress Report.

In its comments on the last progress report, EPA noted that LCA needed to provide a plan for addressing the then remaining 137 illegal connections identified in basements. LCA has stated that "[b]asement disconnections are being completed voluntarily by property owners or under existing regulations governing sale of property. Further corrective actions implemented by partners will take place under the Capital Improvement Phase of the SCARP program and may differ for each partner." In its next progress report, LCA should explain in detail how a combination of voluntary completion of basement disconnections and existing property sale regulations will result in timely removal of all remaining illegal basement disconnections. Otherwise, LCA should provide a plan for basement disconnections that includes specific measures to be taken and a schedule for completion of those measures.

2. Progress Toward Eliminating Infiltration

In its comments on LCA's last progress report, EPA requested that LCA explain in detail how it had determined that wet weather CCTV inspections were not required to validate nighttime weiring operations, and to provide analyses of the results of CCTV inspections of areas with high weir results. In response, LCA states all 58,000 LF of pipe identified (in Upper Macungie Township, Lower Macungie Township and Macungie Township) "*shall be considered for receiving rehabilitation under the capital improvement plan. Since the WLSP has decided to rehabilitate the high weir areas, wet weather CCTV is not required to validate the nighttime weiring results.*" Additionally, in its comments on the last progress report, EPA noted that LCA needed to provide an inventory of defective laterals in the catchments needing rehabilitation. In this report, LCA notes that no lateral inspections were performed during the most recent reporting period, and that due to "*the cost and difficulty of lateral inspection, no lateral inspection will take place during the SCARP investigation and evaluation phase... All laterals in catchments called out for rehabilitation by the Capital Improvements Plan will be assumed to contribute I/I and will be addressed appropriately. If a lateral is connected to a mainline being rehabilitated, the lateral will be rehabilitated in a manner complimentary to the rehabilitation method.*"

In the next progress report, LCA should confirm that it intends to rehabilitate all of the laterals associated with the 58,000 LF of sewers in the identified high weir areas. If it does not intend to rehabilitate every lateral in those areas, LCA should describe in detail how it will determine which laterals will be rehabilitated. LCA should also provide progress on its CIP, including a detailed tabulation of infiltration reduction measures, as part of the next progress report. That tabulation should include the rehabilitation of all 58,000 LF of sewer mains in the identified high weir areas.

In its comments on the last progress report, EPA requested that LCA provide a timeline for the repair of all defective manholes. The requested comprehensive timeline of manhole repairs was not provided. Therefore, LCA should provide the comprehensive timeline of manhole repairs previously requested by EPA in the next semi-annual report.

3. Progress Toward System Characterization

In its comments on LCA's last progress report, EPA requested that LCA explain how it would comply with Paragraph 22.c of the AO. LCA repeated its prior statement that "*[l]ong term flow monitoring data is intended strictly for historical records; the data is not analyzed, and I/I rates are not calculated.*" LCA further noted that five rehabilitation meters and four permanent meters were installed and that the data from these meters will be used where possible to quantify I/I removal for lining projects. In the next progress report, LCA should explain the purpose of flow monitoring if the data is never to be analyzed, and should explain how it has or will comply with the requirements of Paragraph 22.c. In addition, LCA should provide a summary of the results of Level of Service/Level of Control (LOS/LOC) modeling in its next progress report.

4. Progress Toward Cooperative Management of Flows

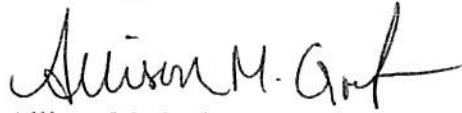
Paragraph 22.d. of the AO requires LCA to provide all correspondence and documentation of collaboration between and/or among Respondents regarding measures Respondents have determined necessary, including, if appropriate, revisions to Service Agreements necessary for managing flows in the system so as to ensure proper operation and maintenance and prevent SSOs. In the current progress report, LCA listed a number of meetings which took place during the reporting period; however, LCA provided limited information regarding the topics discussed at the meetings. Future progress reports should continue to include the dates of collaboration meetings held among Respondents in addition to documentation on topics discussed and/or meeting minutes.

5. Adequate Funding of Operation and Maintenance Activities

Paragraph 22.e. of the AO requires LCA to provide the figures for revenue generated through sewer fees and other sources, as well as listing total revenue allocated to sewer system operation and maintenance. LCA is also required to provide an estimate of costs expended for compliance with the AO during the reporting period and funding options for future rehabilitation, including an analysis of potential regionalization of the System, to achieve full compliance with the AO. LCA's progress report notes that rates have been updated; however, the next progress report should highlight the prior rates as well as the revised rates.

EPA would like to remind LCA and the WLSP that in order to comply with the AO, Progress Reports must include all information requested above. If you have any questions regarding this matter, please contact me at 215-814-2373.

Sincerely,

A handwritten signature in black ink, appearing to read "Allison M. Graham". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Allison M. Graham, Environmental Engineer
NPDES Enforcement Branch

cc: Deane Bartlett, EPA/ORC
Darryl Fritz, PADEP



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OCT 16 2012

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Mr. Aurel M. Arndt, General Manager
Lehigh County Authority
1053 Spruce Street
PO Box 3348
Allentown, Pennsylvania 18106-0348

Re: Administrative Order CWA-03-2009-0313DN

Dear Mr. Arndt:

The Environmental Protection Agency (EPA) received the Lehigh County Authority (LCA) August 6, 2012 semi-annual Progress Report on implementation of the above referenced Administrative Order (AO) on behalf of a number of the Respondents to the AO, collectively referred to as the Western Lehigh Sewerage Partnership (WSLP). Below are EPA's comments regarding the Progress Report.

1. Progress Toward Eliminating Inflow

LCA reports that inflow-related Sanitary Sewer Evaluation Survey (SSES) activities will be complete by the end of 2012. In the January 2012 Progress Report, LCA states that 100 catchments were identified for basement inspections, but the current Progress Report only provides a map of catchment locations where basement inspections were performed for this reporting period. LCA does not provide the results of these inspections and states that "[b]asement inspection results and analyses will be presented in the January 2013 Semi-Annual Report." Paragraph 22.a. of the AO requires that LCA provide a tabular summary of known connections indicating the location, type of connection, and alternatives for routing stormwater after disconnection. EPA expects that the results and analyses provided in the January 2013 Progress Report be modeled after the basement connections results presented in Appendix A of the January 2012 Progress Report.

In the January 2012 Progress Report LCA reported that 198 known illegal connections were discovered during basement inspections and, as of the July 2012 Progress Report, 61 have been removed. EPA requested in January 2012 that "LCA's plans to address remaining illegal connections" be provided in the May 2012 letter. LCA's response of "rehabilitation will continue to take place on an as-needed basis" provides no plan to handle the remaining 137



illegal connections. In the next Progress Report, provide the plan for repairing the remaining illegal connections found in basements.

The May 2012 letter from EPA asked “[i]n the next Progress Report explain why LCA does not intend to perform manhole inspections in Lowhill, Upper Milford and Weisenburg Townships, especially since LCA discovered a number of smoking manholes in all Townships inspected to date.” This information was not provided in the May 2012 Progress Report. In the January 2013 Progress Report, provide an explanation of how smoke testing is complete while not conducted in three townships.

Finally, LCA states that inflow elimination is “done on an asset-by-asset basis as repairs are required.” Since LCA has not repaired all manholes identified for rehabilitation and basement disconnections, provide a schedule in the next Progress Report for all remaining repairs.

2. Progress Toward Eliminating Infiltration

The following request was made in the May 2012 letter from EPA and was unfulfilled in the August 2012 Progress Report. “LCA states that ‘based on the results of the prioritization, no CCTV inspections during storm events will be required.’ However in its July 28, 2011 Progress Report, LCA states ‘CCTV inspection during storm events will be scheduled and prioritized based on the results of the SSES analysis.’ It is unclear how LCA determined that CCTV inspections during storm events are not required, since its SSES investigation is not yet complete and since the results of the nighttime weiring, a surrogate indicator of rainfall-induced I/I, indicate infiltration in every Township.” In the next Progress Report, explain in detail how LCA determined that CCTV inspections during storm events will not be required or used to validate the nighttime weiring operations. In future Progress Reports provide an analysis of the results of CCTV inspections of areas with high weir results performed during the respective reporting period.

LCA states that “all laterals in catchments called out for rehabilitation by the Capital Improvements Plan will be assumed to contribute I/I and will be addressed appropriately.” In the December 2011 EPA letter, EPA requested that “[a]n inventory of potentially defective laterals connected to the sewer system must be provided” in the next Progress Report. These laterals should have been identified during the infiltration-related portion of the SSES investigation, as implied in paragraph 3.1 of the Progress Report. In the next Progress Report, provide the inventory of defective laterals in the catchments needing rehabilitation.

In section 3.2 of the Progress Report, LCA states that infiltration was eliminated on “an asset by asset basis as repairs were required” in Lower Macungie Township and the Western Lehigh Interceptor. However, in Appendix A of the January 2012 Progress Report, LCA identified 80 manholes in Upper Milford and Weisenberg that contained defects. It is unclear why LCA selected Lower Macungie Township and the Western Lehigh Interceptor instead of the towns identified in the previous Progress Report. In the next Progress Report, provide a timeline of repairs of all defected manholes.

According to section 3.3, a list of areas in need of rehabilitation projects have been identified. In the next Progress Report, provide the list of catchments identified in the SSES results and state whether they need further investigation, rehabilitation, or TV and Test.

3. Progress Toward System Characterization

In Section 4.3 of the Progress Report, LCA states that the physical condition assessment of the Western Lehigh Interceptor will be ongoing throughout 2012. In the January 2013 Progress Report, EPA expects the results of the physical condition assessment conducted during 2012.

The following request was made in the December 2011 letter from EPA but was unfulfilled in the January and July 2012 Progress Reports. "Paragraph 22.c. of the AO requires the Respondents to provide results of all flow monitoring conducted during the reporting period; including in each instance the date, location, purpose and calculated I&I rate. LCA provides flow meter and rain gauge data collected; however, the stated purpose of the data is for historical records; the data are not analyzed and I/I rates are not calculated." In the next Progress Report, explain how LCA intends to comply with all requirements of Paragraph 22.c of the AO including flow analysis and I/I rates.

Lastly, in the next Progress Report, provide the timeline for the Level of Service/Level of Control modeling effort, mentioned in paragraph 4.2 of the Progress Report.

4. Progress Toward Cooperative Management of Flows


Paragraph 22.d. of the AO requires LCA to provide all correspondence and documentation of collaboration between and/or among Respondents regarding measures Respondents have determined necessary, including, if appropriate, revisions to Service Agreements necessary for managing flows in the system so as to ensure proper operation and maintenance and prevent SSOs. LCA's future Progress Reports should continue to include dates of meetings and/or discussions and topics discussed while collaborating among the Respondents.

5. Adequate Funding of Operation and Maintenance Activities

Paragraph 22.e. of the AO requires LCA to provide the figures for revenue generated through sewer fees and other sources, as well as listing total revenue allocated to sewer system operation and maintenance. LCA is also required to provide an estimate of costs expended for compliance with the AO during the reporting period and funding options for future rehabilitation, including an analysis of potential regionalization of the System, to achieve full compliance with the AO. LCA's future Progress Reports should continue to include a response to all information required in Paragraph 22.e. of the AO.

EPA would like to remind LCA and the WLSP that in order to comply with the AO, Progress Reports must include all information requested above. If you have any questions regarding this matter, please contact me at 215-814-2373.

Sincerely,

A handwritten signature in black ink, appearing to read "Allison M. Graham". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Allison M. Graham, Environmental Engineer
NPDES Enforcement Branch

cc: Deane Bartlett, EPA/ORC
Darryl Fritz, PADEP



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MAY 16 2012

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Mr. Aurel M. Arndt, General Manager
Lehigh County Authority
1053 Spruce Street
PO Box 3348
Allentown, Pennsylvania 18106-0348

Re: Administrative Order CWA-03-2009-0313DN

Dear Mr. Arndt:

The Environmental Protection Agency (EPA) received the Lehigh County Authority (LCA) January 27, 2012 semi-annual Progress Report on implementation of the above referenced Administrative Order (AO) on behalf of a number of the Respondents to the AO, collectively referred to as the Western Lehigh Sewerage Partnership (WSLP). Below are EPA's comments regarding the Progress Report.

1. Progress Toward Eliminating Inflow

LCA reports that inflow-related Sanitary Sewer Evaluation Survey (SSES) activities will be completed by the end of 2012. In its Progress Report, LCA states that: 1) 97 catchments identified for smoke testing are complete; 2) 100 catchments identified for basement inspections are complete; 3) 181 manholes have been inspected in Upper Milford and Weisenberg Townships; and 4) above grade wet weather sewer observations were performed in 11 of 93 recommended catchments. In Appendix A, LCA reports that 64 smoking manholes were discovered in Lower Macungie, Upper Macungie, Macungie, and Alburtis. Although LCA reports that all smoke testing is complete, it was not performed in Lowhill, Upper Milford and Weisenburg Townships. In the next Progress Report explain why LCA does not intend to perform manhole inspections in Lowhill, Upper Milford and Weisenburg Townships, especially since LCA discovered a number of smoking manholes in all Townships inspected to date. LCA also reported that 198 known illegal connections were discovered during basement inspections. LCA reported the removal of 56 basement disconnections during the reporting period, but did not include plans to address the remaining illegal connections. In the next Progress Report, provide LCA's plans to address remaining illegal connections. Finally, in the next Progress Report, provide the results of any remaining inspections conducted during the reporting period.



2. Progress Toward Eliminating Infiltration

LCA states that “based on the results of the prioritization, no CCTV inspections during storm events will be required.” However in its July 28, 2011 Progress Report, LCA states “CCTV inspection during storm events will be scheduled and prioritized based on the results of the SSES analysis.” It is unclear how LCA determined that CCTV inspections during storm events are not required, since its SSES investigation is not yet complete and since the results of the nighttime weiring, a surrogate indicator of rainfall-induced I/I, indicate infiltration in every Township. In the next Progress Report, explain in detail how LCA determined that CCTV inspections during storm events will not be required or used to validate the nighttime weiring operations.

In Section 3.2 of the Progress Report, LCA states that “no infiltration sources were eliminated during this period” and that “until the Capital Improvements Plan is complete, rehabilitation will continue to take place on an as needed basis.” LCA has identified a number of leaking manholes and sanitary sewer overflows (reported to PADEP) during this reporting period. Explain in the next Progress Report LCA’s criteria in selecting sources of infiltration to address on an “as-needed” basis.

3. Progress Toward System Characterization

In Section 4.3 of the Progress Report, LCA states that the physical condition assessment of the Western Lehigh Interceptor will be ongoing throughout 2012. In future Progress Reports, continue to provide an update on this effort.

4. Progress Toward Cooperative Management of Flows

Paragraph 22.d. of the AO requires LCA to provide all correspondence and documentation of collaboration between and/or among Respondents regarding measures Respondents have determined necessary, including, if appropriate, revisions to Service Agreements necessary for managing flows in the system so as to ensure proper operation and maintenance and prevent SSOs. LCA’s future Progress Reports should continue to include dates of meetings and/or discussions and topics discussed while collaborating among the Respondents.

5. Adequate Funding of Operation and Maintenance Activities

Paragraph 22.e. of the AO requires LCA to provide the figures for revenue generated through sewer fees and other sources, as well as listing total revenue allocated to sewer system operation and maintenance. LCA is also required to provide an estimate of costs expended for compliance with the AO during the reporting period and funding options for future rehabilitation, including an analysis of potential regionalization of the System, to achieve full compliance with the AO. LCA’s future Progress Reports should continue to include a response to all information required in Paragraph 22.e. of the AO.

EPA would like to remind LCA and the WLSP that in order to comply with the AO, Progress Reports must include all information requested above. If you have any questions regarding this matter, please contact me at 215-814-2373.

Sincerely,

A handwritten signature in black ink, appearing to read "Allison M. Graham". The signature is fluid and cursive, with a long horizontal stroke at the end.

Allison M. Graham, Environmental Engineer
NPDES Enforcement Branch

cc: Deane Bartlett, EPA/ORC
Darryl Fritz, PADEP



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DEC 09 2011

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Lehigh County Authority
1053 Spruce Street
PO Box 3348
Allentown, Pennsylvania 18106-0348

Re: Administrative Order CWA-03-2009-0313DN

Dear Mr. Arndt:

The Environmental Protection Agency (EPA) received the Lehigh County Authority (LCA) July 28, 2011 semi-annual Progress Report on implementation of the above referenced Administrative Order (AO) on behalf of a number of the Respondents to the AO, collectively referred to as the Western Lehigh Sewerage Partnership (WSLP). Below are EPA's comments regarding the Progress Report.

1. Progress Toward Eliminating Inflow

In Tables 2-3, 2-4, and 2-5, LCA reports some corrective actions taken to eliminate inflow. However, it is not clear whether additional corrective actions beyond these will be performed. In addition to the analysis of all SSES results, LCA should include a schedule for all remaining inspections to be completed, the results of all inspections, and a schedule to address specific defects identified in its next Progress Report.

2. Progress Toward Eliminating Infiltration

Paragraph 22.b. of the AO requires the Respondents to provide a description of activities undertaken during the reporting period to inspect and/or correct deficiencies within the sewer system. Each Progress Report must include maps indicating which portions of the system have been inspected, how defects have been rated, and where defects were corrected. An inventory of potentially defective laterals connected to the sewer system must be provided.

LCA states that no closed-circuit television (CCTV) inspections during storm events were conducted. However, CCTV inspection during storm events will be scheduled and prioritized based on the results of the SSES analysis. In the next Progress Report, continue to provide an update on implementation of CCTV inspections during storm events and LCA's Wet Weather

CCTV Inspection SSES Work Plan. The next Progress Report should also identify locations where CCTV is to be performed or priorities for selection of such areas.

In the May 24, 2011 comment letter from EPA, LCA was asked to explain why it does not intend to perform any lateral inspections, at a minimum, in those areas identified as having a high rate of rainfall-derived inflow and infiltration (I&I). In Section 3.1.5 of the Progress Report, LCA states that it will not perform lateral inspections during the Sewer Rehabilitation & Capacity Assurance Program (SCARP) investigation and evaluation phase due to the cost and difficulty. However, all laterals in catchments called out for rehabilitation by the Capital Improvements Plan will be assumed to contribute I/I and will be addressed appropriately. LCA does not indicate how it plans to address the laterals in its selected catchments. LCA should develop a plan for doing so, and submit these details in its next Progress Report.

3. Progress Toward System Characterization

Paragraph 22.c. of the AO requires the Respondents to provide results of all flow monitoring conducted during the reporting period; including in each instance the date, location, purpose and calculated I&I rate. LCA provides flow meter and rain gauge data collected; however, the stated purpose of the data is for historical records; the data are not analyzed and I/I rates are not calculated. In the next Progress Report, explain how LCA intends to comply with all requirements of Paragraph 22.c of the AO including updates to the collection system maps to reflect any and all changes to the system and/or system information discovered during the reporting period and the submission of updated maps.

4. Progress Toward Cooperative Management of Flows


Paragraph 22.d. of the AO requires LCA to provide all correspondence and documentation of collaboration between and/or among Respondents regarding measures Respondents have determined necessary, including, if appropriate, revisions to Service Agreements necessary for managing flows in the system so as to ensure proper operation and maintenance and prevent SSOs. LCA's future Progress Reports should continue to include dates of meetings and/or discussions and topics discussed while collaborating among the Respondents.

5. Adequate Funding of Operation and Maintenance Activities

Paragraph 22.e. of the AO requires LCA to provide the figures for revenue generated through sewer fees and other sources, as well as listing total revenue allocated to sewer system operation and maintenance. LCA is also required to provide an estimate of costs expended for compliance with the AO during the reporting period and funding options for future rehabilitation, including an analysis of potential regionalization of the System, to achieve full compliance with the AO. LCA's future Progress Reports should continue to include a response to all information required in Paragraph 22.e. of the AO. LCA should provide the detailed budgets for activities related to the AO requirements in the next Progress Report.

EPA would like to remind LCA and the WLSP that in order to comply with the AO, Progress Reports must include all information requested above. If you have any questions regarding this matter, please contact me at 215-814-2373.

Sincerely,

A handwritten signature in black ink, appearing to read "Allison M. Graham". The signature is fluid and cursive, with a long horizontal stroke at the end.

Allison M. Graham, Environmental Engineer
NPDES Enforcement Branch

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Darryl Fritz, PADEP



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Re: Administrative Order CWA-03-2009-0313DN

Dear Mr. Arndt:

The Environmental Protection Agency (EPA) received the Lehigh County Authority (LCA) January 28, 2011 semi-annual Progress Report on implementation of the above referenced Administrative Order (AO) on behalf of a number of the Respondents to the AO, collectively referred to as the Western Lehigh Sewerage Partnership (WSLP). The WSLP is a consortium of LCA, Upper Milford Township, Weisenberg Township, Lower Macungie Township, Upper Macungie Township, Lowhill Township, Borough of Alburtis, and Borough of Macungie. Below are EPA's comments regarding the Progress Report.

I. Progress Toward Eliminating Inflow

LCA states that Sanitary Sewer Evaluation Survey (SSES) work plans were created for smoke testing, manhole inspections, and above grade wet weather sewer observations. During the reporting period, and as recommended by the SSES Prioritization, 97 of 306 catchments were smoke tested, 181 manholes in the 306 catchments were inspected, and above grade wet weather sewer observations were performed in 15 of the 306 catchments. In the next Progress Report, LCA should include a schedule for all remaining inspections to be completed, the results of all inspections, and a schedule to address specific defects identified.

II. Progress Toward Eliminating Infiltration

Paragraph 22.b. of the AO requires the Respondents to provide a description of activities undertaken during the reporting period to inspect and/or correct deficiencies within the sewer system. Each Progress report must include maps indicating which portions of the system have been inspected, how defects have been rated, and where defects were corrected. An inventory of potentially defective laterals connected to the sewer system must be provided.



LCA states that no closed-circuit television (CCTV) inspections during storm events were conducted. However, the Wet Weather CCTV Inspection SSES Work Plan states that if the chance of precipitation is greater than 70% and there is a forecast condition of "rain", a CCTV crew should be on standby. In the next Progress Report, explain why LCA has not conducted any wet weather CCTV inspections during the reporting period and when it anticipates implementing its Wet Weather CCTV Inspection SSES Work Plan. Additionally, LCA states that Upper Macungie Township and Lower Macungie Township performed CCTV work, but LCA is unaware of the total number of feet televised or the number of identified defects. In the next Progress Report, include defects identified in the entire WSLP collection system and actions taken to correct such deficiencies.

In Section 3.1.5 of the Progress Report, LCA states that no defect rating system was employed for visual inspections. However, the Wet Weather CCTV Inspection SSES Work Plan states that CCTV Operators must identify and record all pipe conditions and defects using proper Pipeline Assessment Certification Program (PACP) codes and calculate all severity ratings according to PACP. In the next Progress Report, explain why the SSES Work Plan is inconsistent in employing a widely accepted rating system, and in the absence of a widely accepted rating system, explain how LCA rates identified defects. LCA also does not explain what is included in its visual inspection work plan. In the next Progress Report, include the visual inspection work plan or other documentation explaining the protocol for performing visual inspections as well as any defects identified during such inspections.

In Section 3.1.6 of the Progress Report, LCA states that it will not perform lateral inspections during the Sewer Rehabilitation & Capacity Assurance Program (SCARP) investigation and evaluation phase. The Wet Weather CCTV Inspection SSES Work Plan states that wet weather CCTV inspections are conducted during rain events to locate sources of rainfall-derived inflow and infiltration (I&I) which enters the gravity sanitary sewer system through defects in both the mains and laterals. In its next Progress Report, explain why LCA does not intend to perform any lateral inspections, at a minimum, in those areas identified as having a high rate of rainfall-derived I&I.

III. Progress Toward System Characterization

Paragraph 22.c. of the AO requires the Respondents to provide results of all flow monitoring conducted during the reporting period; including in each instance the date, location, purpose and calculated I&I rate. In future Progress Reports, include results of all long-term flow meters and rain gauges as well as a response to all remaining requirements in Paragraph 22.c. of the AO.

IV. Progress Toward Cooperative Management of Flows

Paragraph 22.d. of the AO requires LCA to provide all correspondence and documentation of collaboration between and/or among Respondents regarding measures Respondents have determined necessary, including, if appropriate, revisions to Service Agreements necessary for managing flows in the system so as to ensure proper operation and

maintenance and prevent SSOs. LCA's future Progress Reports should continue to include dates of meetings and/or discussions and topics discussed while collaborating among the Respondents.

V. Adequate Funding of Operation and Maintenance Activities

Paragraph 22.e. of the AO requires LCA to provide the figures for revenue generated through sewer fees and other sources, as well as listing total revenue allocated to sewer system operation and maintenance. LCA is also required to provide an estimate of costs expended for compliance with the AO during the reporting period and funding options for future rehabilitation, including an analysis of potential regionalization of the System, to achieve full compliance with the AO. LCA's future Progress Reports should continue to include a response to all information required in Paragraph 22.e. of the AO. In addition, please provide a breakdown of costs expended for compliance with the AO. For example, explain what portion of the costs expended was allocated towards flow monitoring and what portion was allocated for system repairs.

EPA would like to remind LCA and the WLSP that in order to comply with the AO, Progress Reports must include all information requested above. If you have any questions regarding this matter, please contact me at 215-814-2373.

Sincerely,

A handwritten signature in black ink, appearing to read "Allison M. Graham", with a long horizontal flourish extending to the right.

Allison M. Graham, Environmental Engineer
NPDES Enforcement Branch

cc: Deane Bartlett, EPA/ORC
Darryl Fritz, PADEP

